



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,588	02/11/2004	Anjur Sundaresan Krishnakumar	503023-B-01-US (Krishnaku	5364
47827	7590	12/14/2006	EXAMINER	
MCGRATH, GEISSLER, OLDS & RICHARDSON, PLLC PO BOX 1364 FAIRFAX, VA 22038-1364			MEHRPOUR, NAGHMEH	
			ART UNIT	PAPER NUMBER
			2617	
DATE MAILED: 12/14/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/776,588

Applicant(s)

KRISHNAKUMAR ET AL.

Examiner

Naghmeh Mehrpour

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 24-48**, are rejected under 35 U.S.C. 102(e) as being anticipated by Karr et al. (US publication Number 2003/0222820 A1).

Karr discloses a location system is disclosed for commercial wireless telecommunication infrastructures. The system is an end-to-end solution having one or more location centers for outputting requested locations of commercially available handsets or mobile stations (MS) based on, e.g., CDMA, AMPS, NAMPS or TDMA communication standards, for processing both local MS location requests and more global MS location requests via, e.g., Internet communication between a distributed network of location centers. The system uses a plurality of MS locating technologies including those based on: (1) two-way TOA and TDOA; (2) pattern recognition; (3) distributed antenna provisioning; and (4) supplemental information from various types of very low cost non-infrastructure base stations for communicating via a typical commercial wireless base station infrastructure or a public telephone switching network. Accordingly, the traditional MS location difficulties, such as multipath, poor location accuracy

and poor coverage are alleviated via such technologies in combination with strategies for: (a) automatically adapting and calibrating system performance according to environmental and geographical changes; (b) automatically capturing location signal data for continual enhancement of a self-maintaining historical data base retaining predictive location signal data; (c) evaluating MS locations according to both heuristics and constraints related to, e.g., terrain, MS velocity and MS path extrapolation from tracking and (d) adjusting likely MS locations adaptively and statistically so that the system becomes progressively more comprehensive and accurate. Further, the system can be modularly configured for use in location signaling environments ranging from urban, dense urban, suburban, rural, mountain to low traffic or isolated roadways. Accordingly, the system is useful for 911 emergency calls, tracking, routing, people and animal location including applications for confinement to and exclusion from certain areas.

Regarding claims 24, 32-34, 36, 44-46, Karr teaches a method/apparatus of locating a portable device wherein a signal is transmitted from the portable device and received at various strengths at plural receivers in plural zones or wherein plural signals are transmitted from plural signals are transmitted from plural transmitters in plural zones and received at various strengths by the portable device, the method comprising:

- ranking the signals received at various strengths in the order of strengths (0198-0227);
- considering the m strongest signals to be a first subset, when m is a positive integer;
- when a majority of the m strongest signals of the first subset are associated with a same zone, considering that same zone to be a candidate zone (0229-0263);

adding a value k to the strongest signal not in the first subset, which may or may not change the ranking of the signals received at various strengths in the order of strength;

considering the m strongest signals to be a second subset (0245-0282);

when a majority of the m strongest signals of the second subset are associated with a same zone, determining whether that zone matches the candidates zone, and if so, determining the portable device to be located in the candidate zone (0248-0396).

Regarding claims 25, 37, Karr teaches method/apparatus first set sets m equal to 1 and if the portable device cannot be determined as being located in the candidate zone, the method increments m to equal 2 and repeats analysis of the first and second subsets in an attempt to locate the portable device (0226, 0231, 0257).

Regarding claim 26, 38, Karr teaches a method/apparatus wherein if the portable device cannot be determined as being located in the candidate zone when m equals 2, the method increments m to equal 3 and repeats analysis of the first second subsets in an attempt to locate the portable device (0030, 0032).

Regarding claims 27, 39, Karr teaches method/apparatus first set sets m equal to the positive integer, and if the portable cannot be determined as being located in the candidate zone, the method increments m to equal to the positive integer plus one and repeats analysis of the first and second subsets in an attempt to locate the portable device (0226, 0231, 0257).

Regarding claims 28, 40, Karr teaches method/apparatus first set sets m equal to the positive integer, and if the portable cannot be determined as being located in the candidate zone, after first incrementing of m , the method continues a cycle of incrementing m and repeating analysis of the first and second subsets in an attempt to locate the portable device (0226, 0231, 0257).

Regarding claims 29, 41, Karr teaches a method/apparatus of claim 1 wherein said plurality of zones corresponds to the floors of a building (310, 313, 371).

Regarding claims 30, 42, Karr teaches method/apparatus wherein the value k equal a fixed amount between 4 and 6 dB inclusive (0226, 0231, 0257).

Regarding claims 31, 43, Karr teaches a method/apparatus of claim 1 wherein the value k equals a variable amount that is dependent on the value of m (0226, 0231, 0257).

Response to Arguments

3. Applicant's arguments with respect to claims 24-48 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


5. Any responses to this action should be mailed to:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 571-272-7913. The examiner can normally be reached on 8:00 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM
October 20, 20056



NICK CORSARO
PATENT EXAMINER



NICK CORSARO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600